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09/652,766	08/31/2000	Douglas Gourlay	CISCO-2357	3544

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EXAMINER
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LEE, PHILIP C

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 02/25/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

09/652,766

Applicant(s)

GOURLAY ET AL.

Examiner

Philip C Lee

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-33 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

1. This action is responsive to the amendment and remarks filed on January 20, 2004.
2. Claims 1-33 are presented for examination.
3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

*Claim Rejections – 35 USC 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 14 and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Emens et al, U.S. Patent 6,606,643 (hereinafter Emens).

7. Emens et al was cited in the last office action.

8. As per claim 14, Emens taught the invention as claimed for using a phased learning approach for determining closest content serving sites to a fixed location in a computer network including:

A DNS request receiver coupled to the fixed location (col. 7, lines 60-62);

A response time determiner coupled to said DNS request receiver and coupled to the content serving sites (col. 7, lines 49-54);

A query sender coupled to said response time determiner and coupled to the content serving sites (col. 7, lines 49-54; col. 8, lines 25-40);

A data receiver coupled to the fixed location (col. 7, lines 60-62);

A memory coupled to said query sender (col. 10, lines 3-13); and

A data storer coupled to said data receiver and coupled to said memory (col. 10, lines 3-13).

9. As per claim 16, Emens substantially taught the invention as claimed in claim 14. Emens further taught wherein said query sender includes a query timer (col. 9, lines 26-32).

10. As per claim 17, Emens substantially taught the invention as claimed in claim 14. Emens further taught wherein said response time determiner includes a pinger and a reply receiver (col. 10, lines 14-21).

11. As per claim 18, Emens substantially taught the invention as claimed in claim 14. Emens further taught wherein said query sender includes a response time orderer (col. 10, lines 28-35).

*Claim Rejections – 35 USC 103*

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emens, U.S. Patent 6,606,643 (hereinafter Emens).

14. As per claim 15, Emens taught the invention substantially as claimed in claim 14. Emens did not teach wherein said response time determiner includes an n fastest content serving site chooser and an m other content serving site chooser. However, Emens taught wherein said response time determiner includes a mirror server manager for choosing the n fastest content serving site and m other content serving site (col. 10, lines 28-42). It would have been obvious

to one of ordinary skill in the art at the time the invention was made to modify the teaching of Emens by including an n fastest content serving site chooser and a m other content serving site chooser because doing so would increase the field of use in their systems with different configurations.

15. Claims 1-5, 7-13, 19-25 and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emens in view of Midorikawa et al, U.S. Patent 5,953,708 (hereinafter Midorikawa).

16. Midorikawa et al was cited in the last office action.

17. As per claims 1 and 20-21, Emens taught the invention substantially as claimed for using a phased learning approach for determining closest of multiple content serving sites to a fixed location in a computer network including:

In an execution phase:

receiving a Domain Name System (DNS) request from said fixed location (col. 3, lines 28-37; col. 8, lines 20-21);

determining a response time for each of n fastest content serving sites and m other content serving sites (col. 3, lines 38-58; col. 5, lines 1-17; col. 8, lines 21-36), said n fastest content serving sites chosen by using said data and choosing the n content serving sites with lowest transit times (col. 10, lines 28-42), said m other content serving sites

chosen by selecting new content serving sites as well as randomly selecting old content serving sites (col. 10, lines 9-12);

receiving data from said fixed location as to the transit times of each of the n fastest content serving sites and m other content serving sites (col. 3, lines 47-58); and storing said data in said table (col. 10, lines 28-35).

18. Emens did not teach a setup phase and a method of sending queries to each of the content serving sites using the response time. Midorikawa taught a system including:

In a setup phase:

storing data as to the transit times of each of the content serving sites in a table (col. 15, lines 28-57);

In an execution phase:

sending queries to each of the n fastest content serving sites and m other content serving sites, timing said queries so that they arrive at each of the n fastest content serving sites and m other content serving sites at the same time by using said response time for each of the n fastest content serving sites and m other content serving sites (col. 5, lines 13-40).

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Emens and Midorikawa because Midorikawa's method of sending queries to each of the content serving sites using the response time for each of the content serving sites would increase the fairness of each of the content serving sites receiving the

queries by avoiding disadvantages in transmission time with respect to a sender of the queries and by allowing each content serving sites to receive the queries at the same time (abstract).

20. As per claims 2 and 22, Emens further taught the invention wherein said setup phase includes:

receiving a Domain Name System (DNS) request from said fixed location (col. 3, lines 28-37);

determining a response time for each of the content serving sites (col. 3, lines 38-58; col. 5, lines 1-17; col. 8, lines 21-36);

receiving data from said fixed location as to the transit times of each of the content serving sites (col. 3, lines 47-58);

storing said data in a table (col. 10, lines 28-35).

21. Emens did not teach a method of sending queries to each of the content serving sites using the response time. Midorikawa taught a system including:

sending queries to each of the content serving sites, timing said queries so that they arrive at each of the content serving sites at the same time by using said response time for each of the content serving sites (col. 5, lines 13-40).

22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Emens and Midorikawa because Midorikawa's method of



sending queries to each of the content serving sites using the response time for each of the content serving sites would increase the fairness of each of the content serving sites receiving the queries by avoiding disadvantages in transmission time with respect to a sender of the queries and by allowing each content serving sites to receive the queries at the same time (abstract).

23. As per claims 3-4 and 23-24, Emens further taught wherein said determining the response time for each of the content serving sites includes:

pinging each of the content serving sites (col. 3, lines 47-51);  
receiving a reply from each of the content serving sites (col. 3, lines 51-53); and  
determining the response time for each of the content serving sites by computing the difference in time from said pinging to said receiving a reply for each of the content serving sites (col. 3, lines 53-58).

24. As per claims 5 and 25, Midorikawa further taught wherein transit time is the time it takes a content serving site to send a packet to said fixed location after receiving a query (col. 13, lines 14-18, 28-31).

25. As per claims 7-8 and 27-28, Midorikawa further taught wherein said sending queries to each of the content serving sites includes:

querying each of the content serving sites in order of their response times, longest response time first, setting a delay for a query for a particular content serving site from a

time of the query to the content serving site with the longest response time as one half of said particular content serving site's response time (col. 16, lines 33-59).

26. As per claims 9-11 and 29-31, Emens and Midorikawa did not specifically teach wherein  $n$  is 3 and  $m$  is 2, nor wherein  $n$  may be varied based on some criteria. However, Emens taught wherein  $n$  may be varied for selecting the content server sites correspond to mirror servers having a low load (col. 9, lines 1-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Emens to vary  $n$  based on some criteria because this will allow conservation of resources and reduces traffic on the network. (col. 10, lines 38-42).

27. As per claims 12 and 32, Midorikawa further taught wherein said setup phase occurs when the computer network is first set up (col. 8, lines 42-47).

28. As per claims 13 and 33, Midorikawa further taught wherein said execution phase occurs when the computer network is operating normally (col. 8, lines 42-47).

29. As per claim 19, Midorikawa taught including a phase determiner coupled to said response time determiner, said query sender, and said data receiver (col. 15, lines 61-67).

30. Claims 6 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emens and Midorikawa in view of Jindal et al, U.S. Patent 6,324,580 (hereinafter Jindal).

31. Jindal et al was cited in the last office action.

32. As per claim 6, Emens and Midorikawa taught the invention substantially as claimed in claims 1 and 21 above. Emens and Midorikawa did not teach the content of said data. Jindal taught wherein said data includes at least one record, said record including a transit time, a network address for said fixed location, and a network address for a content serving site, said transit time being the transit time between said fixed location and said content serving site (col. 4, lines 40-col. 5, lines 4; col. 11, lines 17-28).

33. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Emens, Midorikawa and Jindal because Jindal's method would enhanced Emens's and Midorikawa's systems by allowing users to be routed, and their requests satisfied by, the content serving site according to said data (col. 4, lines 49-57).

34. Applicant's arguments with respect to claims 1-33, filed 1/20/04, have been fully considered but are not deemed to be persuasive.

35. In the remark applicant argued that

- (1) in claim 14, Emens failed to teach a query sender as defined by the specification.

(2) in claim 15, the cited references failed to teach an  $n$  fastest content serving site chooser as defined by the specification.

(3) Emens does not send queries based on any type of determination of the  $n$  fastest content serving sites.

(4) Midorikawa does not teach timing said queries so that they arrive at each of the  $n$  fastest content serving sites and  $m$  other content serving sites at the same time.

36. In response to points (1) and (3), Emens taught sending its queries to all mirror sites defined in its list of mirror sites (col. 7, lines 39-42). Emens further taught the step of creating the list of mirror sites includes sending load inquiry requests to the mirror servers, and receiving load information responsive to the load inquiry requests (col. 5, lines 1-17). The load of a mirror site can reflect the response time of the mirror site. This means sending queries to mirror sites are based on the determination of the load information responsive to the load inquiry requests.

37. In response to points (2), the specification defines an  $n$  fastest content serving site chooser as a device that chooses the  $n$  content serving sites with the lowest transit times. The  $n$  content serving sites could include all of the mirror sites as taught by Emens. Therefore, `

Emens's teaching is within the scope of applicant definition in the specification.

38. In response to point (4), Midorikawa taught a method of using the response time to execute delay processing to alter the delay time in order for information to arrive simultaneously

at all the terminal devices (col. 5, lines 34-40). Midorikawa did not specifically teach sending queries to the terminal devices. Emens taught sending queries based on the determination of the load information responsive to the load inquiry requests in the response to points (1) and (3) above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Emens and Midorikawa would increase the fairness of each of the content serving sites receiving the queries by avoiding disadvantages in transmission time with respect to a sender of the queries and by allowing each content serving sites to receive the queries at the same time (abstract).

39. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

40. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

41. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Lee whose telephone number is (703) 305-7721.

42. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Philip Lee



JOHN FOLLANSBEE  
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